

# Farm Service Agency and Climate Change



The Farm Service Agency is addressing climate change through the Conservation Reserve Program (CRP) and the Conservation Reserve Enhancement Program (CREP). As the nation's largest private lands conservation program, CRP offers participants the opportunity to reduce atmospheric greenhouse gas (GHG) concentrations while achieving other environmental benefits.

The Farm Service Agency strategy includes:

### **GHG Benefits of CRP**

Shifting cropland into long-term grasses, trees, or restored wetlands increases the quantity of carbon stored in soils and biomass. Taking cropland out of production also reduces nitrous oxide emissions related to fertilizer use and reduces field operations, lowering carbon dioxide emissions from fossil fuel combustion and tillage.

As of March 2008, CRP included 34.7 million acres of grass cover, trees, and wetlands. In 2007, CRP sequestered more than 50 Tg of carbon dioxide. Taking into consideration nitrous oxide and carbon dioxide emission reductions discussed above, CRP acreage currently reduces GHG concentrations by approximately 56 Tg per year.

## **Facilitating CRP enrollment**

In the past, the GHG benefits of CRP were real but were not a factor considered in enrollment decisions. In 2002, FSA made two changes to explicitly consider GHG benefits:

- For competitive contracts, the maximum possible environmental benefits index (EBI) score for the air quality factor was increased by 10 points. The additional points are available for offers that include high carbon sequestration benefits.
- Codified that contract holders may sell carbon sequestration or other environmental credits associated with land enrolled in CRP.

# **Negotiating Federal-State CREP Partnerships**

The impacts of future climate change are difficult to predict. However, most models predict that in the western U.S. temperature, precipitation amount, and the distribution and duration of precipitation events are likely to fluctuate more widely, exacerbating competition for available water. Since 2005, FSA has negotiated four CREP agreements whose main objective is conserving agricultural irrigation water. The agreements with the governors of Kansas, Colorado, Idaho, and Nebraska, respectively, would remove a total of 255,000 acres from irrigated crop production. Incentives from State and local water use authorities pay to retire the water from agricultural irrigation, in three States for the duration of the CREP contract and, in the other, permanently.

### **Future Actions**

The need for future actions to adapt to climate change as it impacts CRP practices and vegetative cover is anticipated. Designs for structures likely will need to be updated to meet changing rainfall and run-off patterns. Practice standards for vegetative cover may need updating to include different species better suited to regional climatic conditions. New techniques or herbicides may need to be used to control invasive and other non-desirable species encroaching more aggressively on approved CRP cover. Additional actions may need to be considered to address impacts on Threatened and Endangered Species, including loss of habitat.